

Application No.: 10/023376

Case No.: 56333US002

Amendments to the Claims:

The following Listing of Claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claims 1-3 (canceled).

4. (Currently amended) [The method of claim 1,] A method for collecting radiation comprising:

disposing an electromechanical radiation collection device in a roll to collect radiation impinging the roll, wherein the roll has an outer surface and the collection device is disposed at a plane tangential to the outer surface.

5. (Currently amended) [The method of claim 1,] A method for collecting radiation comprising:

disposing an electromechanical radiation collection device in a roll to collect radiation impinging the roll, wherein the roll has an outer surface and the collection device is disposed radially inward from a plane tangential to the outer surface.

6. (Currently amended) [The method of claim 1] A method for collecting radiation comprising:

disposing an electromechanical radiation collection device in a roll to collect radiation impinging the roll, and further comprising:

emitting radiation from a radiation source; and
disposing a web between the radiation source and the roll.

7. (Currently amended) [The method of claim 6,] A method for collecting radiation comprising:

disposing an electromechanical radiation collection device in a roll to collect radiation impinging the roll, and further comprising:

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emitting radiation from a radiation source; and
disposing a web between the radiation source and the roll, wherein the roll
includes an outer surface having a series of patterns, which form seams between
the patterns and further comprises:

disposing the collection device at a seam at the outer surface.

8. (Currently amended) [The method of claim 6.] A method for collecting radiation
comprising:

disposing an electromechanical radiation collection device in a roll to collect radiation
impinging the roll, and further comprising:

emitting radiation from a radiation source; and
disposing a web between the radiation source and the roll, wherein the web
includes at least one coating layer.

Claim 9 (canceled).

10. (Currently amended) [The method of claim 9] A method for collecting radiation
comprising:

disposing an electromechanical radiation collection device in a roll to collect radiation
impinging the roll, and further comprising:

emitting radiation from a radiation source; and
measuring characteristics of the collected radiation, and further
comprising:
calibrating the radiation source using measured characteristics.

11. (Currently amended) [The method of claim 6.] A method for collecting radiation
comprising:

disposing an electromechanical radiation collection device in a roll to collect radiation
impinging the roll, and further comprising:

emitting radiation from a radiation source; and

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disposing a web between the radiation source and the roll, further comprising:
collecting radiation at a plurality of points transversely across the web.

Claims 12 and 13 (canceled).

14. (Currently amended) [The method of claim 1,] A method for collecting radiation comprising:

disposing an electromechanical radiation collection device in a roll to collect radiation impinging the roll, wherein the radiation collected is particle type radiation.

15. (Currently amended) [The method of claim 2,] A method for collecting radiation comprising:

disposing an electromechanical radiation collection device in a roll to collect radiation impinging the roll, and further comprising:

measuring characteristics of the radiation, wherein said measured characteristic includes at least one of, energy present in the collected radiation, energy distribution of the collected radiation, polarization of the collected radiation, or accelerated particles in the collected radiation.

16. (Currently amended) [The method of claim 1] A method for collecting radiation comprising:

disposing an electromechanical radiation collection device in a roll to collect radiation impinging the roll, and further comprising:

emitting radiation from a first radiation source;
disposing a first web between the radiation source and the roll;
collecting radiation with the collection device;
measuring characteristics of the collected radiation;
emitting radiation from a second radiation source;
disposing a second web between the radiation source and the roll;
collecting radiation with the collection device;

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measuring characteristics of the collected radiation; and
comparing the measured characteristics of the radiation collected from the first radiation source with the radiation collected from the second radiation source.

Claim 17 (canceled).

18. (Original) A method for measuring radiation comprising:
disposing a radiation collecting device in a roll, wherein the roll has an outer surface and the collection device is disposed at a plane tangential to the outer surface;
disposing a web between a radiation source and the collection device;
collecting radiation directed at the roll; and
measuring characteristics of the collected radiation.

Claims 19-24 (canceled).

25. (Currently amended) [The apparatus of claim 19] An apparatus comprising:
a roll having an outer surface; and
a radiation collection device disposed in the roll, and further comprising:
a radiation source; and
a web disposed about a portion of the roll wherein the web is disposed between the radiation source and the roll.

26. (Currently amended) [The apparatus of claim 25] An apparatus comprising:
a roll having an outer surface; and
a radiation collection device disposed in the roll, and further comprising:
a radiation source; and
a web disposed about a portion of the roll wherein the web is disposed between the radiation source and the roll

27. (Currently amended) [The apparatus of claim 19] An apparatus comprising:

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a roll having an outer surface; and

a radiation collection device disposed in the roll, and further comprising:

an opening sufficient to allow passage of radiation disposed in the outer surface of the roll, wherein the collection device is disposed within the opening.

28. (Currently amended) [The apparatus of claim 27] An apparatus comprising:

a roll having an outer surface; and

a radiation collection device disposed in the roll, and further comprising:

an opening sufficient to allow passage of radiation disposed in the outer surface of the roll, wherein the collection device is disposed within the opening, and further comprising:

a drive assembly connected to the collection device, wherein the drive assembly operates to translate the collection device along the length of the opening.

29. (Currently amended) [The apparatus of claim 27,]] An apparatus comprising:

a roll having an outer surface; and

a radiation collection device disposed in the roll, and further comprising:

an opening sufficient to allow passage of radiation disposed in the outer surface of the roll, wherein the collection device is disposed within the opening, wherein the opening traverses the longitudinal length of the roll.

30. (Currently amended) [The apparatus of claim 27,] An apparatus comprising:

a roll having an outer surface; and

a radiation collection device disposed in the roll, and further comprising:

an opening sufficient to allow passage of radiation disposed in the outer surface of the roll, wherein the collection device is disposed within the opening, wherein the opening is covered by a window transparent to radiation collected by the collection device.

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31. (Original) An apparatus comprising:

- a roll having an outer surface and an opening sufficient to allow passage of radiation disposed in the outer surface;
- a radiation collection device movably disposed in the opening;
- a measurement device remotely disposed from the collection device and connected to the collection device so as to receive radiation collected by the collection device; and
- a drive assembly connected to the collection device, wherein the drive assembly operates to translate the collection device along the length of the opening.